

**CALIFORNIA CABG OUTCOMES REPORTING PROGRAM (CCORP)
CLINICAL ADVISORY PANEL (CAP)**

Sutter Square Galleria
2901 K Street, Room 206
Sacramento, CA 95816

**September 8, 2005
9:30 a.m. to 2:30 p.m.**

MEETING MINUTES

In Attendance

Clinical Advisory Panel Members:

Robert Brook, M.D., Sc.D.
Andrew Bindman, M.D.
Ralph Brindis, M.D., F.A.C.C.
Cheryl Damberg, Ph.D.
Timothy Denton, M.D., F.A.C.C.
Keith Flachsbart, M.D.
Frederick Grover, M.D.
James MacMillan, M.D.

OSHDP:

David Carlisle, M.D.
Joseph Parker, Ph.D.
Hilva Chan
Herbert Jew
Denise King
Niya Fong
Disha Parikh
Mandisa Zeigler

Other Attendees:

Ezra Amsterdam, M.D., UC Davis
Beate Danielsen, Ph.D., Health Information Solutions
Richard Kravitz, M.D., UC Davis
Zhongmin Li, Ph.D., Health Services Researcher
Geeta Mahendra, Senior Analyst, UC Davis
James Marcin, M.D., UC Davis
David M. Roche, Ph.D., Professor, UC Davis
Jerry Royer, Ph.D., California Public Utilities Commission
Anthony Steimle, M.D., CCORP Consulting Cardiologist

Introduction and Approval of Minutes

Dr. Robert Brook, Chairman, called the meeting to order at 9:35 a.m. Everyone introduced themselves and then reviewed the minutes from the April 27, 2005 CAP meeting. Dr. Timothy Denton moved to approve the minutes and Dr. Ralph Brindis seconded the motion. All were in favor.

Program Director's Report

Dr. Joseph Parker began with the Program Director's Report starting with staff updates. A candidate for the full-time health services researcher position that will take over direction of the CCORP program has been selected however obtaining a HB-1 Visa is posing a problem. There are currently two vacancies for senior level researchers in the Healthcare Outcome Center at

OSHPD. The UC Davis contract amendment extension was approved up to June 2007 and Geeta Mahendra, a Senior Analyst, is the new full time researcher under the UC Davis contract. Dr. Parker highlighted the new research activities which included processes of care, appropriateness, complications, and impact of public reporting.

Next, Dr. Parker reviewed the major regulatory changes to begin January 2006 that were approved at the last meeting and gave a final opportunity for review. There were no objections from the committee on the new data elements or replacing in-hospital mortality with operative mortality for reporting hospital and physician risk-adjusted rates.

CCORP Contracting Budget and Staffing was the next topic. Dr. Parker explained certain aspects of the budget were confidential and therefore could not be disclosed. Current program staff include: (1) Ph.D. level OSHPD research scientist-not currently filled; (3) professional and administrative OSHPD staff; (2) students; (2) full-time on-site UCD researchers and through contracts other UCD consultants. Up to 60% of the professional and administrative staff time is spent on data processing, correction and validation. An online data submission system for CCORP, beginning in 2008, will streamline the data submission process and thereby reduce staff data handling time by approximately 25%. The annual contracting budget is approximately \$800K and covers the annual medical records audit, CCORP tool, the online reporting system, UCD contract, training, consulting cardiologist, travel and meeting expenses.

Dr. Brook had a question regarding the numbers on Dr. Parker's slide being well over the annual \$800K figure. Dr. Parker explained that the UCD contract extends into mid-2007, so funding had been encumbered from two fiscal years, and more money will be available in the future. However, he acknowledged this was difficult to illustrate in the annual figures.

Dr. Brook requested that the CAP be presented with a total annual budget cost for maintaining the program. He would like to see the annual budget broken into functional components: e.g. personnel salary, audit costs, data gathering costs, public report costs, contract costs....etc. He cited the need to know how much the average bypass surgery in the State of California was, including the professional and hospital fee and to at least disclose to the public, in bypass operations equivalents, how much this program costs. He felt this would help the committee justify the program existence as well as help determine how much of the total budget would be saved if incoming data were assumed to be accurate by eliminating the annual on-site medical records audit. Dr. Parker agreed to research the annual budget cost for the program's functions for the next meeting.

Dr. Parker reviewed the two CCMRP Research Datasets that only include hospitals that did not withdraw from the program. CCMRP 1997-1999 has almost 50,000 records and CCMRP 2000-2002 has over 57,000 records (but will not be available until at least December 2005). Researchers at academic institutions are eligible to submit a request to OSHPD and customization of datasets has been allowed in the past. To date there have been few requests, possibly due to lack of advertisement.

Dr. Parker highlighted other program activities such as modifications to the data collection tools, the hospital abstractor training schedule for January 2006, creating an online reporting system for CCORP data and the 2004 data year medical chart audit which is anticipated to be completed by April 2006.

CCORP Update & Discussion

Dr. Parker reviewed the CCORP timeline for publication of the first surgeon-level and hospital report. Committee input was requested on whether the hospital ratings should be based on two years of data (2003 & 2004) like the surgeon ratings or just use one year's worth of data. Dr. Parker volunteered to bring to the next meeting an analysis of one versus two years of data for hospital ratings to show the committee how volume affects changes as well as outlier status. After a brief discussion the committee reached a majority consensus to commit to their decision for how to display the data before reviewing the analyses. Dr. Parker mentioned a subcommittee will need to be formed to address hospital and surgeon appeals of the report.

Next, Dr. Parker requested the committee's approval of the 2003 Operative Mortality Risk Model for the 2003 CCORP Hospital Public Report scheduled to be completed by December 2005. After reviewing the risk model development and performance ratings, Dr. Keith Flachsbart motioned to approve the model and Dr. James MacMillan seconded the motion. All were in favor.

The discussion turned to the results of the 2003 Hospital Audit. 15 hospitals were selected and the audit corrected 12% of all possible data points in CCORP audited data. The replacement of submitted data with the audited data resulted in raising the Risk Adjusted Mortality Rate (RAMR) for only 3 hospitals and increasing the C-statistic from .829 to .833 thereby improving its predictive discrimination. Dr. Parker will provide the audit results to California Society of Thoracic Surgeons (CASTS) via a written letter informing them of the program's problem elements as well as forward a copy to Dr. Frederick Grover at STS. The committee inquired on the added value of auditing since the data is corrected by PDD data. Dr. Brook wanted to see the percent corrected reduced from 12% to less than 10% in future audits and felt the 76% agreement for acuity should be a coder education point.

Dr. David M. Rocke then presented "The Why and When of Multi-Level Models" in which he outlined why using the multi-level regression approach is a better way to rate hospitals and surgeons rather than using the logistic regression model. He pointed out that the logistic regression model could do quite well, if factors associated with hospital or surgeon were not an issue affecting mortality. However, hospital characteristics and surgeon characteristics may affect mortality. These include explicit characteristics, such as annual isolated CABG volume, as well as difficult to measure characteristics, such as level of experience.

The logistic regression model is problematic because it assumes initially that hospital and/or surgeon characteristics are inherently the same. The underlying structure of a multi-level regression model allows one to assume initially that hospitals and surgeons are inherently different and to incorporate their characteristics into the model, via hospital-specific intercepts. The multi-level regression model permits one to account for systemic factors associated with the hospital/surgeon within the model itself rather than the traditional approach via ad hoc post-estimation after calibration of the model.

During the subsequent discussion, Dr. Rocke pointed out that his analysis identified no outlier hospitals from the 2003 post-audit data set when using the multi-level model with a 95 percent confidence level (CL). However, outliers did emerge using a lower CL threshold. Dr. Brook remained concerned that no outliers were being identified using the multi-level model. Afterwards, the committee recommended further evaluation of use of the multi-level model.

Given the lack of remaining meeting time, Dr. Parker asked that discussion of the agenda items 2003-4 Physician Public Report and the NQF National Voluntary Cardiac Surgical Measures be postponed until the next meeting.

The committee broke for lunch at 12:00 pm and reconvened at 12:30 pm.

Dr. Anthony Steimle requested clarification from the committee regarding the definition of isolated CABG surgery for a case under review. The committee decided to wait for an appeal to be submitted before making any decisions on individual cases they were asked to review. The committee did not want re-writing of isolated CABG definitions to fit every case scenario that comes before them. However, they will review cases and determine isolated or non-isolated status when requested by a hospital if this is helpful in refining the definition of isolated CABG surgery. Cases are to go to Dr. Steimle for determination during the reporting period and should there be questions he will bring them before the committee for discussion. Dr. Steimle committed to providing some examples to assist hospitals in determining the Salvage criteria (ex: providing continuous CPR from cath lab to operating room and adding ECMO examples). These would constitute “clarifications” per the CCORP definition. The current STS definition of Salvage was thought to be unnecessarily restrictive. “...undergoing cardiopulmonary resuscitation en route to the OR...”

Other Studies

Dr. Ezra Amsterdam presented on “Should Use of the IMA Be included in CCORP as a Process Measure of Quality in CABGs?”. For the hospitals reporting <80% average use of LIMA Dr. Brook requested an age analysis of patients at these hospitals by surgeon and by hospital to help see if the older patients aren’t getting the LIMA because of the “myth” that sicker patients shouldn’t get the procedure. He also wanted to see what the hospital case-mix was to determine if there is justification for not doing LIMA grafting. The surgeons in the group stated that they all do not see any reason why a surgeon could not perform the LIMA procedure on a qualifying patient because it is not that difficult of a procedure to perform surgically. Dr. Brook also would like someone to determine if there is any literature (single studies) on LIMA use (<80%) in hospitals. After further discussion the committee agreed that inconsistency in LIMA use by practicing surgeons needs to be addressed and that the LIMA use by hospitals study should be disclosed to the public when it is ready for release. Dr. Brook asked Dr. Parker try to find a way to get the word out confidentially to those hospitals whose surgeons are not performing this procedure. Dr. Parker said it might be possible to discuss with the California Chapter of STS contacting hospitals using LIMA less than 80%, but warned that OSHPD would be forced to release these data publicly if requested. The panel expressed some frustration that OSHPD could not move quickly to release this information in a confidential manner to hospitals in a way that could have immediate impact.

Next, Dr. Richard Kravitz spoke on “Overuse and Underuse of CABG in California: Options for Measurement and Improvement.” The committee agreed this was an important issue especially the interpretation of angiograms. Dr. Brook asked the presenter, Dr. Denton and Dr. Brindis to team up to create a workable plan for investigating appropriateness.

In the last presentation, Dr. James Marcin discussed “The Relationship Between Hospital CABG Volume and Operative Mortality” using 2003 CCORP data. He found that there was no association between hospital CABG volume and risk-adjusted surgical mortality in the most recent 2003 multilevel exploration of the CCORP data. Therefore from this data no policy

recommendation regarding regionalization of services or volume thresholds could be given. The committee recommended including an abbreviated version of the analysis in the 2003 report and waiting until the 2003-4 physician analysis to do a more extensive report. Dr. Marcin also highlighted an “Impact of Public Reporting” study plan. Dr. Grover commented that STS data found less impact of public reporting on hospital’s operation. He suggested that the impact study should look at hospitals that have never participated in the public reporting program.

Dr. Bindman motioned to dismiss. All were in favor. The meeting adjourned at 2:30 pm.